



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,437	11/07/2001	Mayu Yamada	3815/138	9970
22913	7590	09/21/2005	EXAMINER	
WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY) 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			SOL, ANTHONY M	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

✓

Office Action Summary	Application No. 10/045,437	Applicant(s) YAMADA ET AL.	
	Examiner Anthony Sol	Art Unit 2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,108,321 B1 ("Anderson").

Regarding claims 1 and 4,

Anderson shows in Fig. 2 a dynamic channel assignment scheme utilizing interference measurements made on the uplink and downlink. Anderson discloses the Interference Based Dynamic Channel Assignment (IBDCA) which consists of signal measurement, channel ordering, call admission, channel assignment, call maintenance, call handoff and system/cell startup procedures. Anderson further discloses that the IBDCA scheme makes signal measurements in each cell 18 of Fig. 1 on the uplink and the downlink. Received signal strength measurements are used in channel ordering procedures. Based on the measurements, channels are ordered by a long-term and a short-term process. Of the possible four combinations is the long-term process being time slot based and the short-term process being time-slot based (Col. 3, lines 11-24, col. 4, lines 2-12, 22-25, 50-52; Claim 1 – giving uplink and downlink priorities to all the time slots in the frame; claim 4 - memory means for storing uplink or downlink

priorities of all the time slots in the frame).

Anderson discloses that a pair of frequencies, called a channel, is assigned to a call: one to provide the uplink and the other to provide the downlink. Anderson further discloses that a TDMA call is admitted if there exists a channel (Col. 4, lines 28-32, Col. 6, line 66; Claim 1 – receiving a time slot assignment request from at least one of the uplink channels and the downlink channels; claim 4 - receiving means for receiving a time slot assignment request from at least one of the uplink channels and the downlink channels).

Anderson discloses that when a call arrives in a cell 18 of Fig. 1, the call is assigned a channel based on certain channel assignment criteria (Col. 4, lines 12-16; claim 1 – assigning the time slots in the frame in response to the time slot assignment request received at the receiving step, in accordance with the priorities given at the giving step; claim 4 - assignment means for assigning the time slots in the frame in response to the time slot assignment request received by said receiving means in accordance with the priorities store in said memory means).

3. Regarding claims 2 and 5,

Anderson discloses when the entire system is started up and there is no fixed spectrum in use, all the channels in the long term and short-term list will occupy the same positions in all cells (Col. 7, lines 51-53; claim 2 – the giving step gives the same priority to a plurality of the time slots included in the frame; claim 5 - memory means gives the same priority to a plurality of the time slots included in the frame.).

4. Regarding claims 3 and 6,

Anderson discloses that the channels are arranged in the order of increasing moving average RSS (received signal strength) value. It may be necessary to maintain separate moving averages for different times corresponding to various levels of traffic intensities. Anderson further discloses that a moving average may need to be maintained for each hour, or it may be sufficient to maintain one moving average value that is updated only during busy hours and use this value always to order channels. Anderson further discloses that the short-term process thus provides the cell with the best channels (i.e. the ordered short term list) for the channel assignment procedure. It is inherent that the short term list (priorities list) is stored in memory (Col. 5, lines 51-54, lines 57-60, Col. 6, lines 34-36; claim 3 - the giving step stores the given priorities in a memory means, and the assigning step assigns the time slots in the frame in accordance with the priorities stored in said memory means; claim 6 - assignment means decides the priorities of the time slots to be assigned in accordance with the priorities stored in said memory means).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

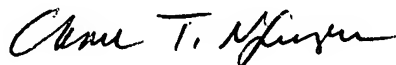
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Sol whose telephone number is (571) 272-5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMS
AMS

9/19/2005



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600